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Canadian Longitudinal Study on Aging
Étude longitudinale canadienne sur le vieillissement

CLSA Approved Project

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Project Title
Broad and deep longitudinal analysis in neurodegenerative disease (BRAIN) – Identifying and predicting trajectories of decline in cognitive and physical function using data from Canadian Longitudinal Study of Aging (CLSA) linked to routinely collected health system data (follow-up)

Project Summary
Declines in various aspects of cognition such as memory, language skills and reasoning are normal parts of aging. However, not everybody follows this normal trajectory of age-related cognitive decline. In some, there are premature changes in specific aspects of cognition, or mild overall changes in cognition that do not interfere with normal social function. In others, changes can be more rapid, broad-based, and profound, resulting in substantial impairment of social function and independence that requires extensive care and support. We will use CLSA data and health system data to better define these different cognitive decline trajectories, to identify risk factors associated with each trajectory and to measure health and healthcare utilization of people in each trajectory. The goal is to provide evidence on risk factors for mild cognitive impairment and dementia that can guide research on prevention and evidence on needs and outcomes to help plan services for our aging population.

Keywords
cognitive decline, mild cognitive impairment, frailty, cardiovascular disease, trajectories, clustering, supervised learning, unsupervised learning